



Press Release

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The Hawai'i Undersea Research Laboratory Launches Online Deep-Sea Animal Identification Guide

Honolulu, HI – With over 30 years of diving to the deep-sea in manned submersibles, scientists at the Hawai'i Undersea Research Laboratory have seen a plethora of organisms most people will never have a chance to see. As one of the few institutions that creates detailed logs of all video produced with the submersibles, HURL has created and built up a knowledge base that is featured in a photo-guide of all the organisms one might encounter in the deep-sea around Hawai'i. Until recently, that guide was only available to scientists preparing for upcoming dives. Now scientists around the world, as well as the general public, can access HURL's deepwater animal photo-guide online.

<http://www.soest.hawaii.edu/HURL/animals/id/>

HURL's deepwater animal photo-guide is a collection of over 1,500 images from video still captures, digitized 35 mm slides, and pilot camera photos. The guide serves as a taxonomic reference of all deepwater animals encountered during submersible and ROV dives over HURL's 30 year history. The images have also been loaded onto Apple iPads which are provided to the pilots to carry down in the submersible for observers to use during the dives. Scientists may familiarize themselves with this guide in advance of diving to be prepared for what organisms they may encounter.

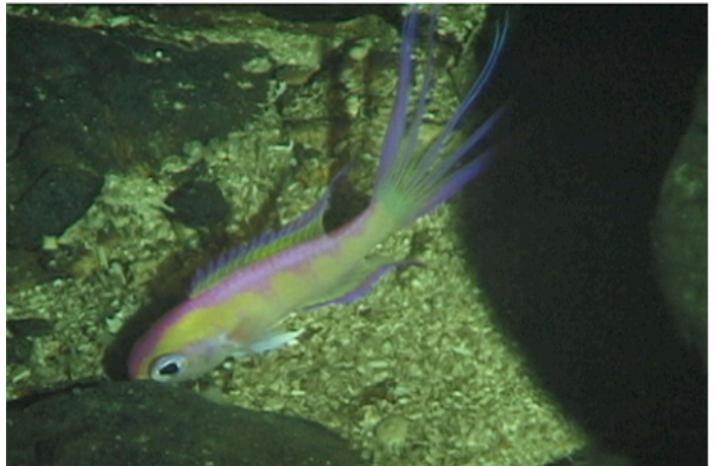
According to HURL Biologist Christopher Kelley, "only *in situ* images are included in the guide in order to show how beautiful and unique the animals are when seen alive and in their natural habitat." The guide is organized according to major taxa and identifications are made following consultation with taxonomists specializing in these groups. Kelley hopes no one will be intimidated by the scientific names, which are necessary since many of the animals don't have familiar common names. "HURL simply wants people to appreciate the amazing variety of life forms that exist in deeper waters around Hawai'i," he adds. Each image is tagged with a color that indicates the depth at which the representative photo was taken.

Now that the guide is online, communication with taxonomists and specialists is easier than ever before since they can provide feedback and/or corrections directly from the website. Kelley has already received a request to use some of the images in the online Encyclopedia of Life and to present a link to the guide at the upcoming Deep Coral Symposium in Amsterdam. Fishermen in Hawai'i may also find it useful when they catch

Euretidae Euretinae gramophone P5-532-036



Callanthiidae *Grammatonotus macrophthalmus* P5-455-d1-03843



Images in the HURL deep-sea animal identification guide include a sponge found over 1000m (top) and a striking fish that was a new record for Hawai'i when first seen in the 200-400m range in the Northwestern Hawaiian Islands (bottom).

Images courtesy of the Hawai'i Undersea Research Laboratory.

something unusual that they haven't seen before. HURL is planning to add some simple keys to the guide that will make it easier to search for images of particular species.

The Hawai'i Undersea Research Lab operates the *Pisces IV* and *Pisces V* submersibles, two of only eight human occupied submersibles in the world that can dive deeper than 1500 meters (~5000 feet). These submersibles provide the ability for people to explore, discover and study the unique ecosystems, endangered habitats, life-sustaining marine processes, and other wonders of the deep ocean floor – *up close and in person*. “We've been around for over three decades and have developed the equipment, personnel, and local knowledge of the study areas important to scientists and marine managers,” said HURL Director John Wiltshire.

Over the past 30 years HURL's accomplishments include long-term studies of Lō'ihī submarine volcano and the Northwestern Hawaiian Islands. Notable discoveries include an historically significant Japanese midget submarine and deep-sea corals that are some of the oldest living organisms on Earth. Work in the newest U.S. Marine National Monuments led to an international five-month investigation throughout the central and southwestern Pacific that involved 58 scientists from 12 research entities and included the first submersible dives on 13 different undersea volcanoes. A new 6000-m capable ROV will further enable exploration of NOAA's four new Marine National Monuments in the Pacific.

More information about HURL at their website, <http://www.soest.hawaii.edu/HURL>

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The School of Ocean and Earth Science and Technology at the University of Hawaii at Manoa was established by the Board of Regents of the University of Hawai'i in 1988 in recognition of the need to realign and further strengthen the excellent education and research resources available within the University. SOEST brings together four academic departments, three research institutes, several federal cooperative programs, and support facilities of the highest quality in the nation to meet challenges in the ocean, earth and planetary sciences and technologies.

www.soest.hawaii.edu